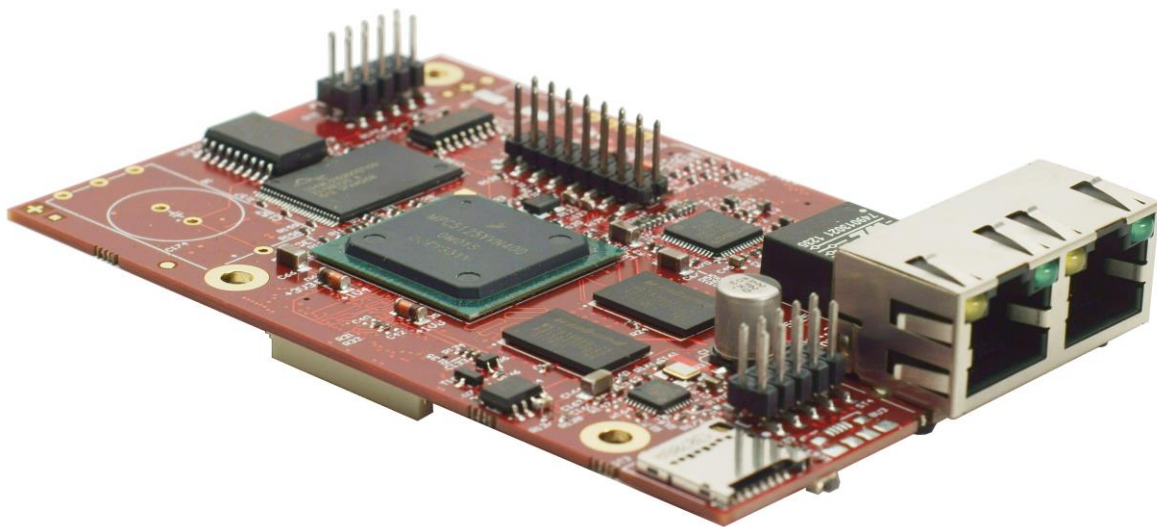


Core-5125

Processor module MPC5125



Freescales mobileGT family is designed for the use in vehicles and complies with their high environmental demands. The **Core-5125** is based on the MPC5125 and stands out due to its graphic interface (WXGA / 720p), an USB host interface and two Ethernet ports.

The **Core-5125** makes this rugged and versatile technology also available for the use in industrial control systems. Benefit from the powerful processor and the RTOS-UH system, use the proven and tested processor module as core part of your application specific electronics!

As a stand-alone module, the **Core-5125** only needs a power supply and is simple to deploy in customer specific designs. All functional modules of the processor are made accessible by high density connectors; the versatility of the MPC5125, it's high computational power, especially in floating point calculations, and it's low power design are key features for the successful deployment in all kinds of measurement and control applications.

Core-5125

Module



Controller

As controller, the MPC5125 integrates e.g. functional blocks:

- 4x CAN
- LCD WXGA / 720p upto 1280x720x24, with hardware cursor und α -blending
- 10x PSC (UART, SPI, ...)
- 16x Timer (PWM, input capture, output compare, ..)
- 64x GPIO, universal I/O
- 3x I²C

The **Core-5125** makes all these functions accessible via high density connectors.

Processor

As a processor, the MPC5125 core features are:

- 400 MHz clock frequency (800 MIPS at < 1 Watt), 64 Bit FPU
- external 32 bit bus
- JTAG/COP/BDM debug port

Low current consumption and availability in the $-40^{\circ}\text{C} - 125^{\circ}\text{C}$ temperature range allow for the deployment even under difficult environmental conditions.

Module

The **Core-5125** completes the MPC5125 by all those functions, that are necessary to convert a bare bone controller into a ready-to-run workhorse:

- upto 512 Mbyte DDR2-SDRAM
- upto 8 GB Flash
- upto 256 kB EEPROM für Konfigurationsdaten
- 2 Ethernet RJ45 10/100 Mbit, optional POE
- RTC, realtime clock with calendar
- Slot for an μ SDHC card
- 1x USB 2.0 host interface via μ USB jack
- 1 RS-232, 5 wire
- supply 5 V / 500 mA
- size 100 x 85 x 18 mm

All signals are routed via high density connectors Using the **Core-5125** as proven and tested building block gives access to the high performance feature of the MPC5125 and still allows for the application specific design of IO peripherals, even in small lots.

Programming

The realtime operating system RTOS-UH is in the standard scope of supply.

Crest-C, PEARL and IEC 61131-3 are available as programming languages.